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Brain-Power of Plants.

The modern student of plant life no longer regards the objects of his study as so many things which merely demand classification and arrangement, and whose history is exhausted when a couple of Latin or Greek names have been appended to each specimen. On the contrary, the botanist of to-day seeks to unravel the mysteries of plant life. For him the plant is no longer an inanimate being, but stands revealed as an organism exhibiting animal functions, such as breathing, circulation of blood or sap, various complex movements, and sleeping, which are as certainly equally well defined as are the analagous traits in the existence of the animal. We have seen that all these functions in the animal kingdom cannot be performed except by the agency of the various nerves, etc., and that there must be a source of power behind the different nerve cells of which the brain is composed. The brain itself can, therefore, be looked upon as an intermediate motion which only serves for the more perfect transmission of impulse. This motor is absent in plants; but does it necessarily follow that the power or force itself is non-existent? Certainly not. There is any amount of evidence to the contrary. Some say that this power is merely insinct, a great authority tells us, is only blind habit or automatically-carried out action. If this is so, then instinctive actions only move in one direction, and cannot adapt themselves to circumstances. But all those who have studied the habits of plants know full well that they have the power of adapting themselves to circumstances, and have many movements and traits that are the very reverse of automatic. Numerous instances might be pointed out in which not only are the signs of sensibility as fully developed in the plant as in the animal, but many phases of animal life are exactly imitated. Take, for example, those wonderful plants the Mimosa, sensitive of the most delicate touch. The manner in which this plant closes its stalks and leaves at the approach of darkness is very interesting. As the gloaming gently falls the leaves move upward toward each other till they touch; the secondary leaf-stalks slowly droop till they are nearly parallel with the main leaf-stalks, which, in their turn, fall till they point to the ground. Thus it folds itself at the close of day, and there is no doubt if it were not allowed to sleep it would, like ourselves, soon die. This is not only an example of the necessity of sleep for the repairing of nervous energy and recuperation of brain-power, but a proof of the existence of the same in the vegetable kingdom. Then there are the carnivorous plants, the Venus fly-trap (Dionæa) for instance, which will digest raw beef as readily as its insect prey. From glands with which its leaf is provided fluids are poured outwhich resemble the gastric juice of the animal stomach in its digestive properties. The matter of the insect body or meat is thus absorbed into the substance and tissues of the plant just as the food taken into the animal stomach is digested and becomes part of the animal fabric. In the animal, digestion can only be commenced by the brain-force acting by means of a nerve upon the gastric glands; we may, therefore, concede that it is the action of the same power in the plant that produces the same effect, A still more remarkable instance of intelligent plant movement is found in one of the lowest forms of the vegetable kingdom, viz., the Peronospora infestans, the well-known potato fungus. When the spore-cases burst a multitude of little bodies escape; if these bodies gain access to water they develop a couple of curious little tails, and by means of these tails they swim about after the manner of tadpoles. Surely this is something higher than a mere automatic or instinctive movement. There is another trait which plants have in common with animals, viz., friendship, or, as it is called, symbiosis. A sort of sympathy between certain plants has long been observed to exist, as if one loved the shadow of the other. The old Italian botanist, Malthiolus, observing some curious sympathies in plant life, termed the phenomena "the friendship of plants." In his work he says: "There is so much affection between the reed and the asparagus that if we plant them together both will thrive marvelously." The limits of an article of this kind will not permit me to go any further into this interesting subject, or to adduce more of the many other examples pointing to the fact that brain-power can and does exist apart from a visible brain which in the vegetable kingdom has its counterpart in that protoplasm which, by the aid of the microscope is seen to run hither and thither through the cells of the plant, and active movements are seen to pervade their entire organism. Vital activity is the rule and inertness the exception in plant life; and this fact serves to impress upon us the error of that form of argument which would assume the non-existence of the higher traits of life in plants, simply because the motive power is invisible. Man's intelligent will seems best to account for the progressiveness of the human race, which so evidently marks an insurmountable distinction between the genus homo and the rest of creation, but which would be inexplicable were there no other difference but in the degree of their intellectual faculties, or in the quality of their brain-power. The human understanding differs from this brain-power in its being enlightened by reason, and that the principles which actuate man's ultimate ends are best named ideas.—National Review.

Unlimited Tickets.

When the railroad company issues what it calls "unlimited tickets" it seems to be with a sort of mental reservation on the part of the company, or rather a privilege reserved, to convert the unlimited into a limited ticket at its own pleasure. For example: A passenger buys a first-class, unlimited into a limited ticket from Omaha to San Diego via San Francisco. He expects to receive all the ordinary privileges on such a ticket, including the stop over, which such tickets afford. But when he reaches Ogden his troubles begin. He is told by the Central Pacific train agent that his ticket, though first-class and unlimited, is not good for passage, and that he must surrender his ticket and receive in lieu thereof a limited check, not good for a stop-over, and in most cases he makes the exchange, either from ignorance of his rights or because he does not wish to get into trouble with the train men and be ejected from the train.

The argument of the railroad company in support of this new and vexatious rule is that they must have all their passengers make a continuous passage on through tickets to Southern California by the way of Ogden. If this is not done, they say, many passengers who desire to come to San Francisco will buy tickets to San Diego, and on their arrival here will sell remaining coupons to scalpers, who will in turn sell them to local travelers desiring to go to Southern California.

Suppose that such is the case. It is obvious that nothing of the sort could be done unless the railroad comany was discriminating against San Diego. If the company would sell transportation upon the only proper and legal basis, that of mileage, nothing of the kind could occur, for there would be no advantage in buying the unused coupons; but so long as the Central or Southern Pacific Company will carry passengers proportionatelymore cheaply for the long haul than for the short one so long the ticket scalpers will thrive, and so long the company will be at odds with its patrons.

Why should it be cheaper to go from San Francisco to San Diego by starting from Omaha than by starting directly from San Francisco? The people of this State would like an answer, not couched in the jargon and gibberish which railroad companies have invented to throw an air of mystery about their business, but in plain ordinary terms, such as the general public can understand. The two cities are in direct railroad communication, and why a passenger coming from the East should have such an immense advantage in rates over a passenger who lives here is something which demands explanation, and it is a thing which the public will not long put up with unless it be satisfactorily explained.—S. F. Chronicle.

An Indian Story.

An old-time resident of Denver a day or two since related an incident of the original "Buffalo Bill" Cody, father of the present famous showman, which has never been in print and is worthy of a place in the News. Old man Cody was a prominent figure on the plains in early days, being the owner of an extensive trading post on the Arkansas in the vicinity of old Fort Larned. Late in the "50s" he received information that the Indians proposed to clean out his ranch, which was an extensive adobe building surrouned by stockade. He did not pay much attention to it but the same news continued to reach him, was at last confirmed by the arrival of a large band of Cheyennes, Arapahoes and Kiowas, who camped on the opposite side of a deep arroyo from the trading post, across which the military authorities had erected a bridge for the passage of supply trains. The savages pretended to be very friendly, and wanted to trade, swapping furs and skins for ammunition, but their object was to burn the post and carry away Cody's as a trophy—a fact of which the old frontiersman was well informed through the spies he had among them. The place was well armed but not sufficiently manned to resist an attack of so formidable a band of redskins and Old Bill cast about to see what he could do to protect himself. In the stock yard of the fort was an old howitzer, which had been abandoned by some of the plains military expeditions, and this he had carried to the top of the post and placed it so it would sweep the bridge. He had plenty of powder, but no other ammunition fit to load it with, and so he charged the gun with old mule shoes, nails, bits of iron, and similar truck. The cannon loaded, he awaited developments. Early one morning he observed an unusual movement in the camp of his pretended friends, and soon fully armed with war paints on, the savages made a dash toward the fort. Cody was at his howitzer match in hand. The painted devils crowded the narrow bridge. And just as the foremost reached the nearest bank, he discharged his gun at clear range of the bridge. There was a wild howl of disappointed rage, a vision of dead Indians tumbling into arroyo, of legs and arms, and heads lying around loose without claimants and fleeing and frightened savages escaping from the fatal bridge. Cody's single shot had saved his post, and, he was always thereafter left in peaceful possession of his ranch. Just what struck them on the bridge the Indians never knew, and the survivors of the fatal charge always entertained the firm belief that "Buffalo Bill' was in league with the evil spirit. and as such, a person to whom it was safe to give a wide berth.—Denver News.

West Indian Pirates.

The West Indian pirates were commonly known by the name of filibuster or freebooters,which some authorities refuse to to "free" and booters," (or plunderers), and find its original in the Flemish wlibot or flibot, a kind of small, swift boat, specially adapted to practical cruising The earliest filibusters were English and French hunters, who lived by the chase and by their plundering excursions in the sea of the Antilles. In order to provide themselves with a common rendezvous and asylum they made a descent in 1630 on the island of Tortuga, two leagues to the north of San Domingo, and captured it. The settlement which they formed there increased rapidly in numbers, and was divided into three distinct classes—the buccaneers, who were engaged in hunting oxen and boars the hides of which they sold when sundried, or buccaned; the inhabitants, who labored at the tillage of the ground, and the filibusters, who pursued the avocation of pirates. The last-named were recruited to a great extent from the French marine, and obtained their chiefs among the Knights of Malta. But there were large bodies of English seamen engaged in the illicit trade, and some of the most successful and notorious buccaneering chiefs were Enlish captains. Their ships, at all events in the early years of West Indian piracy, were small and badly provisioned, and a flotilla of three or four would carry more than 150 men. They took up their positions at the mouths of rivers, lying in wait for the Spanish trading vessels. When one appeared they threw out their grappling irons and carried it by boarding. Then they repaired to the nearest island and divided the booty; or, if their prize proved to be a vessel of importance, armed it as a ship of war, appointed to it a captain, and, with the assistance of half a dozen of the the foremost men, arranged a plan of voyage, and, having settled every thing, each man's rights, the partition of prize money, and the extra allowances in money or slaves for wounds received in combat, spread their canvas to the wind. In this way the filibusters gradually (and even rapidly) replaced their tiny craft by wellfound ships of goodly size and equipment.—Gentleman's Magazine.

The people have not decided the question hastily. They have given both sides a patient hearing. They have had their own experience of prohibition in past years to aid them, and they have had the benefit of the experience of States like Rhode Island and Kansas, where constitutional prohibition has been tried and found wanting. It is idle to suppose that the liquor-dealers had any appreciable effect on the result. They are a very small class, and only a few drops in the ocean of votes. It is the people who have spoken, after one of the most thorough debates this State has ever heard and they have spoken against the amendment because they believe absolute prohibition is neithjust, practicable nor expedient. They are conviced that the license and local-option system is the best method within their reach.—Boston Globe.

Shaving was introduced among the Romans about 300 B. C. Pliny says Scipio Africanus was the first Roman who shaved every day. Subsequently the first day of shaving was regarded by the Romans as the entrance upon manhood, and celebrated with great festivities.

Race Degeneracy.

Besides the study of individual conditions of health, it well behooves us to consider the tendency to race elevation on the one hand or race degeneracy on the other. For it is the record of history as to nations that have ceased to be, that the earliest signs of decay were those that betoken a loss of physical vigor. The forces now operating for the injury of public health are more forceful than in any age which has preceded it. In this we do not refer to the results of squalid wretchedness,which have been quite the same in every age, but to those devitalizing and enervating forces that are active amid high occupations and are the outcome of our present civilization. Factory industries have become relatively much more prominent than laborers in the field or on the sea. Not only do indoor occupations cause a greater tax upon physical vigor,but modern appliances, instead of relieving, often complicate the problem. Certain habits, too, have so gained in their prominence and potency and in the period in which they are acquired as to greatly impair the vigor of population. It would be a comfort if these results could be confined to a single generation; but what we now know of the laws of heredity gives to them a fearful significance. The generation that uses its eyes in reading on the cars and by the brilliant light of gas or electricity is sure, not only to create a greater demand for spectacles in the next generation, but to multiply indefinitely various forms of imperfect vision. The parent who indulges largely in the use of tobacco and who, perhaps, began with his cigarette in childhood, may survive the slow and insidious effect, but there is too often an inheritance of weakened muscle, flabby heart, disordered nerve, or over-sensitive brain. The entailments of alcohol, in all its forms from wine to beer, are too numerous to catalogue in any single age, and continue their influence along the line of posterity. It is not that as a rule the heredity shows itself by the inheritance of the very same habit, or by the reproduction of the same change of structure; but even this is often the case. The child early in life may begin to show morbid cravings which culminate in the very same inordinate desires. It is also true even oftener still that the same diseases are inherited either as a tendency of perverted function or as a result of structural change. How often we say: "How much the boy resembles the father," the same color of eye and hair, the same shape of nose, the same general contour of features. Even so lungs, liver, and heart and other organs inherit size or shape or power, and so the changed make-up of the man is the legacy more lasting than any conveyed in the last will and testament. Those who are studying these problems of race are not theorists, but find in the facts before them a full support to what reason and judgment indicate. A recent writer on the influence of town-life gives comparisons as to the measurement of men of various nationalities, and then shows that "the loss of physique, of muscular tonicity, vital capacity, and vital force" are unquestionable. As to the influence of bad habits he notices especially intemperance, and adds that "the various forms of impurity smite with devitalizing severity the offspring of the third and fourth generations." The great deception is that the effects of evil influences are not always apparent in the case of the individual exposed. The young man well reared in the country, endures the stress and strain from the bad air of tenement house, or that of the factory, so as to get comfortably through life, but his children, with a very different stock of vital force on hand, do not. In many cases the age at death is not the real test of the impairment which has occurred. Many of those thus exposed have enough of life to retain it even when they have lost vigor for work, and yet by special care are able thus to prolong their days. —New York Independent.

The Beef Monopoly.

The prices which farmers and ranch men receive for their cattle and hogs, as well as the retail prices paid by consumers of meats, are largely controlled by a few men who operate in harmony. Chicago is the headquarters of this combination. But to what extent the depression in the present value of beef-cattle is actually due to this beef monopoly has not yet been clearly stated. A select committee of the United States Senate and the recent St. Louis convention of legislative delegates have, as yet, failed to satisfactorily solve the problem. The late organization by Eastern capital of a powerful syndicate to compete with Armour for the supremacy in the beef and provision business is perhaps the most hopeful event in this connection. Competition is just what the beef market wants, for both the producers' and the consumers' sake. Strong efforts are being made in certain States to secure laws for inspection on the hoof of all cattle intended for consumption within the State. This is done ostensibly on the ground that Chicago dressed beef is unhealthy, but practically for the reason that such a law would exclude the monopoly-controlled product from the markets of the State. But it is not clear how such statutes in a few States are to compel the monopoly to pay better prices to producers. This policy is objectionable also because of its influence on foreign governments, which not understanding the domestic reasons for such legislation, may be led to accept it as prima facie evidence of the diseased condition of American meats and therefore be led to declare an embargo against American provisions. That the closing against us of any considerable proportion of the world's markets for meats would be disastrous in the extreme is at once apparent. Nearly all of our fresh beef and more than 70 per cent of the canned or cured articles goes to Great Britain—a country which, perhaps, would be most likely to avail itself of any excuse for excluding American meats, so as to enormously stimulate the frozen meat trade with its own colonies and the live and dressed beef commerce with Canada. Obviously, therefore, no State legislation should be encouraged which of itself would tend to stop our meat exports. If, however, the State laws proposed could be modified so as to co-operate with, and render more effective, the proposed Federal statute for the inspection of cattle intended for interstate or export trade, the objection to the principle proposed would be overcome in a measure. In this case the States would supplement the Department of Agriculture in guaranteeing the purity of American provisions both at home and abroad. Thus the object aimed at by the State laws suggested would be better accomplished and at the same time every incentive would be given our foreign trade.—American Agriculturist.

According to the figures of the census of 1880, rather more than 12 per cent of the population of this country were of Irish birth and Irish parentage; rather more than 3¼ per cent were of Irish birth; rather more than 8½ per cent were of Irish parentage, although born in this country.

A movement is on foot in Nicaragua to sever the relations between Church and State.